



# HFC *on* MEDIA

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Issue 24



*Head parachute rigger lectures Tuskegee airmen on use and care of parachutes in the early 1940s. The photograph was obtained for use in the new Moton Field exhibit at Tuskegee Army Airmen National Historic Site, Alabama. Learn more about finding and acquiring images for use in interpretive media products starting on page 2. (Howard University)*

## From HFC's Director

September is always a busy month here at Harpers Ferry Center. The fiscal year-end close-out process consumes our acquisition management staff and budget personnel. The pressure is on to complete line item construction allocation requests, issue third party drafts, accrue outstanding travel authorizations, and submit expenditure transfer requests. With more than 800 total projects on our books for FY 2008, completing the close-out is no small feat.

I commend our entire staff for their amazing work over the past 12 months. The following numbers put it all in perspective. During 2008, HFC staff have worked on 392 interpretive media projects totaling almost \$65 million. Ninety-five projects have been completed, and another 297 projects are still active.

Among our newest work are 13 Centennial Initiative projects totaling just over \$3 million. These projects include a sign project for the National Mall; a new film for Assateague Island; conservation of two sketchbooks and a diary for Yellowstone; new exhibits for Assateague Island, Fredericksburg-Spotsylvania, Great Smoky Mountains, Manassas, and Valley Forge; and new wayside exhibits for Andrew Johnson and Fire Island.

Congratulations to everyone on a job well done!

—Don Kodak

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# Getting the Right Image

## Graphics Acquisition Requires Perseverance and Some Luck

If “a picture is worth a thousand words,” then obtaining the right picture can make or break an interpretive exhibit or park brochure. HFC graphics acquisition specialist Teresa Vazquez and contractor Pat Lovett, who acquire graphics for National Park Service exhibits, publications, and wayside exhibits, both know this all too well.

### Image Sources

Vazquez and Lovett review thousands of images every year, and acquire between 5,000 and 6,000 of them for use in HFC media projects. “Our most common image sources,” according to Vazquez, “include the National Archives and Library of Congress.” Another favorite source is Photo Researchers, Inc. of New York City. Photo Researchers manage the Audubon photo collection and several related collections

of wildlife images. “We’ve developed a great working relationship with them over the past two decades,” says Vazquez. (See sidebar on page 5 for HFC’s favorite image sources.)

Depending upon the particular project, Vazquez and Lovett may need to consult a variety of known—and unknown—image sources. “Because park stories and meanings vary so much from site to site and even



A Tuskegee airman poses in front of his P-17 trainer at Moton Field, now part of Tuskegee Army National Historic Site. (Tuskegee University Archives)

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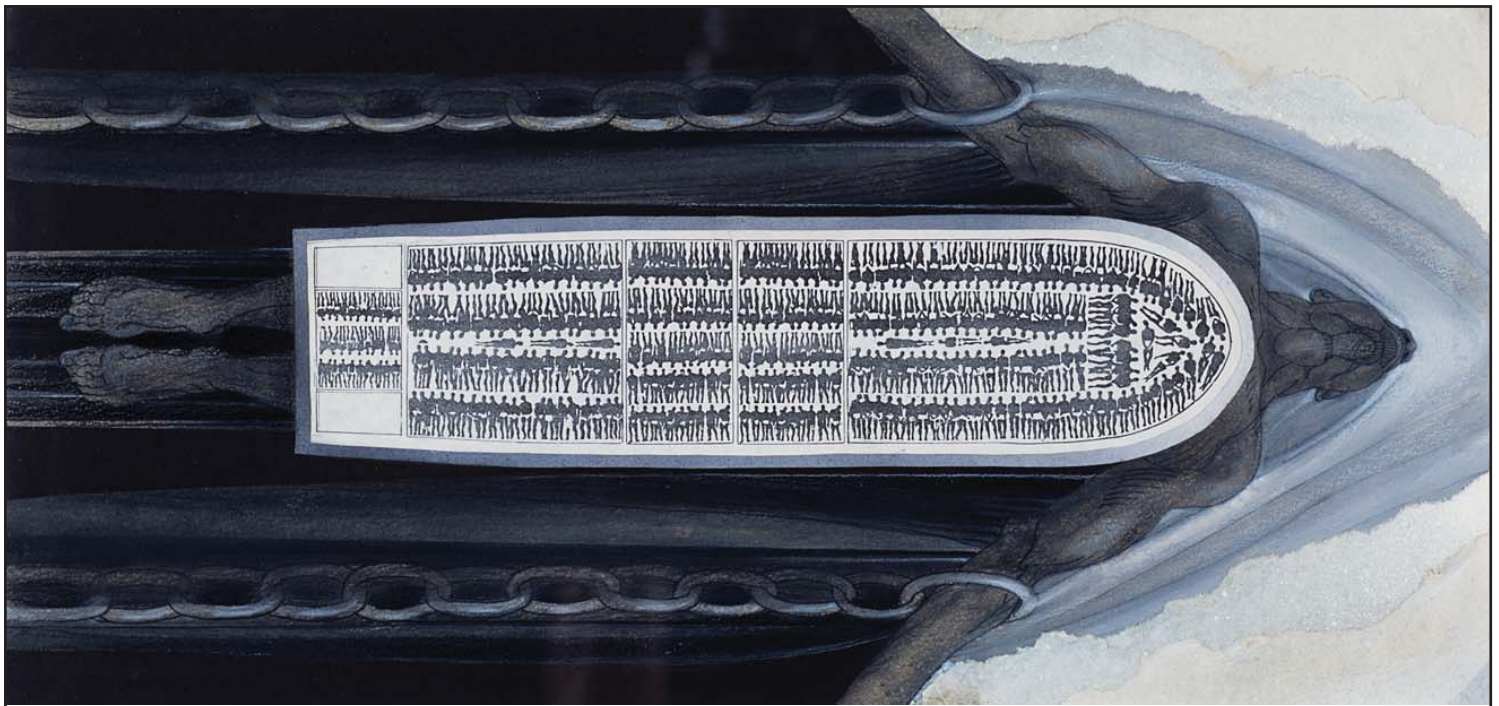
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from project to project,” says Lovett, “we can spend from 10 minutes to 10 hours to 10 days looking for a very specific image.” In some cases, conducting general Internet searches on “Google” and “Yahoo” provide helpful leads.

### Tracking Down Images for Fort Moultrie & African Burial Ground

When HFC exhibit planner Krista Kovach came across several pictures of African American slavery artwork by artist Tom Feelings, she thought they’d be a great addition to new exhibits at Fort Moultrie, South Carolina and African Burial Ground National Monument in New York City. She asked Teresa Vazquez to find out if images of the artwork could be used in the new exhibits.

Vazquez points out that finding the right image is only part of the job. Obtaining use rights and the necessary reproductions are another matter. “Creativity and persistence,” says Vazquez, “are required for negotiating the acquisition of use rights.” This is particularly true because Harpers Ferry Center acquires rights for “life of the project” or “in perpetuity.” These rights permit the same image to be used on all future printings of a

park brochure or on a wayside exhibit that might be replaced or updated. According to Vazquez, acquisition costs can range from free to as much as \$8,000, but typically average about \$200 apiece.

Vazquez was able to track ownership of the slavery artwork to the Estate of the late Thomas Feelings. She contacted Kamili Feelings, the artist’s son, who was in England at the time. But negotiating use rights was only part of the process. The original artwork, it turned out, was based at the University of South Carolina in Columbia, and was currently on tour across the United States. Vazquez had to wait for the artwork’s return to South Carolina to arrange large format black and white photography. Curator Jason Shaiman of the University of South Carolina was indispensable in helping Vazquez set up the photo shoot.

The HFC contracting office pulled the legal and licensing agreements together, and Harpers Ferry Center provided both the family and University with digital scans and black and white transparencies of the original artwork. “It was an honor and pleasure to work with Kamili Feelings and his mother Muriel,” says Vazquez. “It was a

*A chained man’s shoulders act as the bow of a vessel. This artwork shows how human cargo was packed into a slave ship. Artwork copyright © Estate of Thomas Feelings.*

win-win situation for everyone.” Altogether, acquisition of the use rights and photography cost about \$3,500 and took almost 12 months.

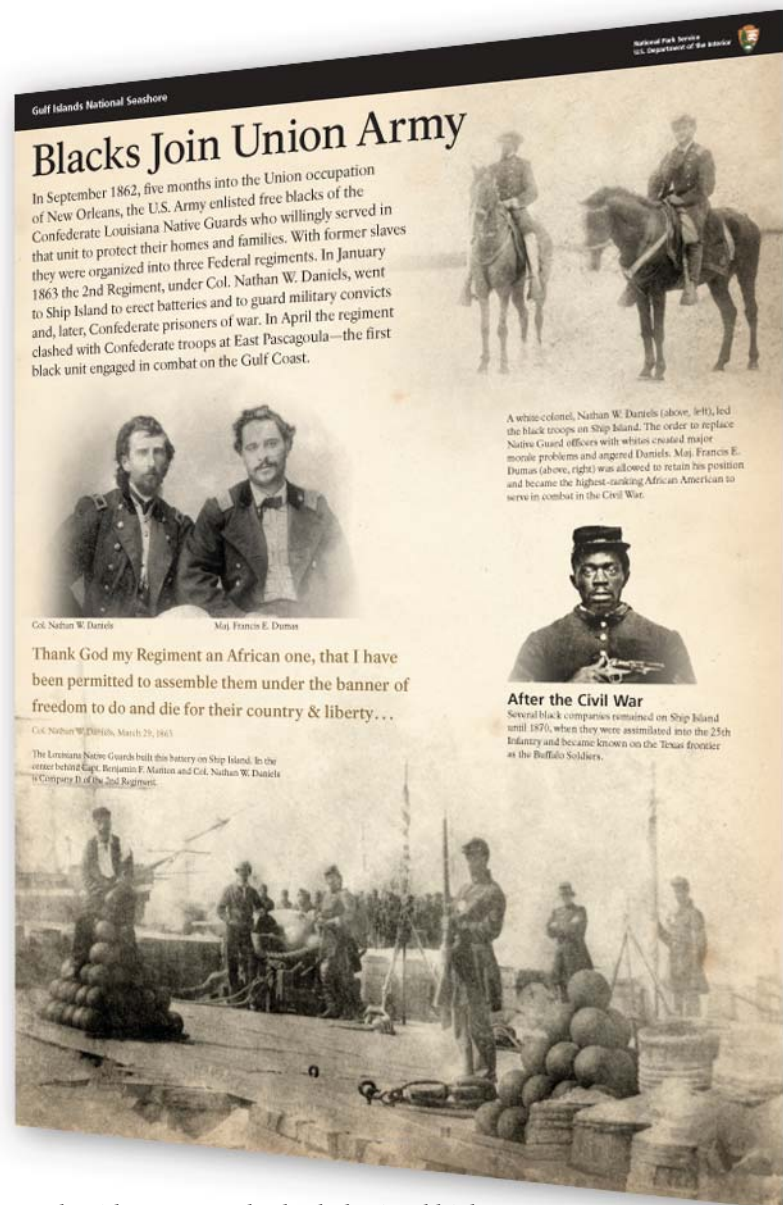
## Tracking Down Images for Gulf Islands National Seashore

The extent to which persistence and luck play a role in image acquisition was demonstrated on a recent wayside exhibit project for Gulf Islands National Seashore. When retired HFC staff member Bob Grogg was contracted to help develop new wayside exhibits at Fort Massachusetts on West Ship Island, he quickly learned about the diary of Union officer Nathan Daniels.

Colonel Nathan W. Daniels, commander of the Second Regiment Louisiana Native Guards, kept a detailed diary on West Ship Island from January 1863 through the end of the Civil War. The regiment was comprised exclusively of African-American soldiers from Louisiana. In that diary, Daniels also collected photographs of the men and day-to-day military activities on West Ship Island. The photos were a treasure trove, capturing life in a place that Daniels called “a dreary desolate sandbar.”

Gail Bishop, chief of interpretation at Gulf Islands National Seashore, informed Grogg that Claire “Kitty” Weaver, who had uncovered the diary in an old trunk in New Orleans, had donated the diary to the Library of Congress. So Grogg contacted the Library to help locate the prized photos. But even with the assistance of an archivist, Grogg struck out. No sign of the diary or its photos could be found in the Library’s Prints and Photographs Division.

Grogg then followed the diary’s trail to the Louisiana State University Press. LSU Press had published *Thank God My Regiment and African One, The Civil War Diary of Colonel Nathan W. Daniels*, edited by Kitty Weaver. The book included Daniels’ photos of West Ship Island, but LSU Press didn’t have the original photos. Instead, they put Grogg in



touch with Weaver, who had obtained high-resolution scans before donating the diary and photos to the Library of Congress.

Through Grogg’s persistence, the National Park Service has acquired the use of several period photographs for wayside exhibits on West Ship Island. The photos include Union officers from the Second Regiment Louisiana Native Guards, soldiers standing behind an artillery battery, officers riding in a horse-drawn ambulance, and other photos of daily life on the island. Grogg also learned from Kitty Weaver that Daniels’ original diary was located in the Manuscript Reading Room at the Library of Congress, not in the Prints and Photographs Division.

*Wayside exhibit panel for West Ship Island at Gulf Islands National Seashore. Photographs from the diary of Col. Nathan Daniels were indispensable to the story of the Union soldiers who occupied the post. Photos are copyright © Claire Weaver.*



## Digital Delivery is Now the Norm

Vazquez and Lovett are typically working on 8-10 projects at any given time. Vazquez has managed graphics acquisition at Harpers Ferry Center for the past 16 years, while Lovett has been on board for the past six years. Both note some important changes in the way the business now operates.

“Eighty percent of the images we acquire,” says Vazquez, “are now delivered in digital format. This is a big difference from just five years ago. It’s really important to specify the size, resolution, color space, and file format for each image.”

When images are delivered as transparencies or on reflective media, they are sent out for professional scanning to either Gamma Graphix ([www.gammagraphix.com](http://www.gammagraphix.com)), Rieger Imaging ([www.rieger.com](http://www.rieger.com)), or Dodge Color ([www.dodgecolor.com](http://www.dodgecolor.com)). Images from HFC’s own collections, including the Commissioned Art Collection and NPS Historic Photograph Collection, are scanned in-house by HFC technical information specialist Wade Myers.



## Building Relationships

Vazquez and Lovett emphasize the importance of developing good relationships with potential image sources. Lovett, for instance, has built a great relationship with Monica Karales, wife of the late photojournalist James Karales, whose photos have helped document the story of Martin Luther King, Jr. and the Selma to Montgomery Civil Rights marches. She’s also developed a relationship with the curator of Howard University’s photograph collection in Washington, D.C. The curator, who was born in Tuskegee, Alabama, has provided invaluable assistance in locating images for new exhibits in the Moton Field Hangar at Tuskegee Airmen National Historic Site.

Images have always been a critical focal point for any media project. They are essential pieces of a museum exhibit, film, publication, or wayside exhibit. As the stories above have shown, the task of finding the right image can be difficult and time-consuming. The entire process requires considerable patience and perseverance. By selecting and using the right image, we are better able to tell stories that both inform and inspire our park visitors. The payoff is almost always worth the effort, but the road you take to get there is seldom the same.

National parks and program offices in need of graphics research or image acquisition assistance can contact Teresa Vazquez at Harpers Ferry Center (e-mail: [Teresa\\_Vazquez@nps.gov](mailto:Teresa_Vazquez@nps.gov); phone: 304-535-6714).

*Photograph of WASHAKIE (Shoots-the-Buffalo-Running), a Shoshone Indian Chief. (National Archives)*

## Our Favorite Image Sources

Here’s a list of image sources commonly used by HFC graphics acquisition specialist Teresa Vazquez and contractor Pat Lovett (*in alphabetical order*):

AG Editions (*agent who represents hundreds of national photographers*)

Alaska Stock Image

Art Resources

Birds as Art

Bridgeman Ltd.

Brown Brothers

California Academy of Natural Sciences

Corbis

Denver Public Library, Western History Collection

Doug Perrine (*underwater photography*)

Florida State Archives

Fotosearch

Getty Images

iStockphoto

Library of Congress, American Memory Collection

NASA.gov

National Archives

New York Public Library, Schomburg Collection

NorthWind Picture Archives

Philadelphia Free Library

Photodisc (*stock photos and royalty-free photos*)

Photo Researchers, Inc. (*Audubon image collections and others as well*)

Ron Niebrugge

Smithsonian Institution

Stephen Frink (*underwater photography*)

U.C. Berkeley Digital Library

Visuals Unlimited, Inc. (*strong in the area of plants and animals*)

# New Lights Cast a Green Shadow

## *Illuminating Exhibits at Lassen's New Visitor Center*

By Larry Bowers, Michael Paskowsky, and Mitch Zetlin

**Kohm Yah-mah-nee—the name the Mountain Maidu people call Lassen Peak—is the moniker for a new visitor center that opens this fall in Lassen Volcanic National Park. New exhibits will highlight the rich natural and cultural heritage of this northeastern California park.**

Lassen Peak sits along the Ring of Fire that circles the Pacific Rim at the crossroads of the Cascade Range and the Sierra Nevada Mountains—an active volcanic region with outstanding natural beauty.

The new visitor center was designed to meet the high standards for a Leadership in Energy and Environmental Design (LEED) certification from the U.S. Green Building Council. The National Park Service has made a concerted effort to design the visitor center with a variety of environmentally sustainable, or “green” attributes. Special features include an off-site photo-voltaic system that generates about 30% of the building’s electrical needs, cooling that is provided by natural ventilation, and a cooling and heating system that taps the natu-

ral temperature of the earth. Wood was selected from regional forests certified by the Forest Stewardship Council for sustainability. The visitor center also has a daylight harvesting system, which dims lights when natural daylight is available.

A big challenge for the design team was finding energy efficient lighting for the exhibit area. Until recently, “green” in lighting design has meant compact fluorescent lights. CFLs have been readily available for some time now, and can be used to meet energy efficiency requirements for general ambient illumination in NPS visitor centers. However, exhibits require directional lighting—lighting which can be aimed and controlled to illuminate specific panels, thereby maximizing the design intent.



*Left: HFC exhibit designer Mitch Zetlin looks on while lighting specialist Larry Bowers tests the light output and color rendering of a Journée lamp. Above: The Journée lamp's futuristic look is actually designed to dissipate heat. (NPS Photos by Michael Paskowsky)*

### New Employees

#### Jerry Bock

Jerry Bock has joined Harpers Ferry Center as Associate Manager of Programs & Budget. Jerry is a native West Virginian, born and raised in Charleston, where he attended George Washington High School. He obtained a bachelor's degree at Southern Illinois University, then headed further west and spent the next 23 years on the West Coast.

Jerry worked as a loan officer and assistant branch manager for a commercial bank in Seattle for ten years, then decided to go back to school and earned an MBA at the University of California, Berkeley. Shortly before completing his studies at Cal, he went to work for the San Francisco Regional Office of the US Environmental Protection Agency as a program analyst. He worked for EPA in San Francisco for ten years, the last six as a manager in the Water Division, working with tribes, municipal wastewater projects, non-point source control, and watershed teams.

Jerry returned to West Virginia in 2000 when he purchased an historic house (1799) in Shepherdstown. He worked for the Department of the Interior in Washington, DC, doing budget formulation for eight years—four years with Bureau of Reclamation and four years with Minerals Management Service. He joined Harpers Ferry Center in July 2008.

Jerry serves on the Water Board in Shepherdstown and enjoys gardening, traveling, tennis, and jogging.

#### Theresa Eisenman

Theresa Eisenman has joined Harpers Ferry Center as a project manager for Workflow Management. Theresa has been with the National Oceanic and Atmospheric Administration (NOAA) in Silver Spring, Maryland, for the last nine years—most recently serving as acting director for

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Developments over the past five years in white light LEDs have led to the introduction of new systems with potential for use in NPS exhibit lighting. Most of the major lighting manufacturers (Philips, GE, etc.) are investing huge amounts of research dollars in LED technology, resulting in logarithmic jumps in lumen output and lighting efficacy. Still, LEDs are not yet equivalent to parabolic reflector (PAR) lamps in lumen output or color rendering, and do not yet offer the versatility of standard museum lighting. Tungsten halogen PAR lamps are currently the standard museum and exhibit lamp, chosen because of the crisp white light they produce and their high Color Rendering Index (CRI). But LED technology is rapidly changing.

Some LED manufacturers are developing end-user products for direct marketing to the public, while others are producing LEDs and components for marketing to secondary manufacturers. One of these latter companies is Journée, a new California-based manufacturer of the LED track lighting chosen for the exhibits at Lassen.

Ric Alesch, Denver Service Center project manager for the Lassen Volcanic National Park visitor center, found Journée through discussions with other LED light manufacturers and an Internet search. He contacted HFC for advice on whether the Journée lamps would work for this application.

"I was relentless in my belief that no incandescent-based bulbs should be used in the new Lassen visitor center," says Alesch, "not only to save energy for the park, but to also show that the NPS is a leader in moving toward more sustainable lighting solutions in federal buildings." He stresses that the park superintendent and staff embraced this idea

and strongly supported this quest for CFL or LED lamps that would work throughout the building. Says Alesch, "the exhibit lights turned out to be the biggest challenge due to their special requirements."

Because Harpers Ferry Center had no direct knowledge of their products, Journée provided a section of track and a fixture for testing at HFC's Willow Springs facility. The system consists of field bendable track with fixtures suspended from posts, all easy to install. After several days spent testing the light output and color rendering, HFC lighting specialist Larry Bowers was able to recommend the Journée system to DSC for the Lassen exhibits. An analysis of the exhibit requirements by HFC designer Mitch Zetlin confirmed the recommendation.

The fixtures have a futuristic look, which some may find objectionable, but that's a necessary design feature used to dissipate heat. The fixture angle is easily adjusted, and the beam spread can be changed by the user from a 12° medium spot to a 27° narrow flood using interchangeable cones. Power usage is 16 watts for each fixture, with a projected life expectancy of approximately 25,000 hours. Journée uses LEDs manufactured by Osram-Sylvania. Osram expects a lumen increase of up to 30% by January 2009, and up to a 10% increase in the Color Rendering Index by the third quarter of 2008—both of which bode well for future use in NPS exhibits.

LED manufacturers are working hard to make products which meet both NPS energy requirements and aesthetic concerns. Be aware, though, that there are big differences in LED products, with quality and reliability often at variance with the manufacturer's advertising.

*Journée's LED-based light fixtures illuminate objects and artifacts without UV or IR radiation, use less than half of the energy required by similar halogen-based lighting systems, comply with California's energy-conscious Title 24 code, and meet the U.S. Green Building Council LEED standards being adopted across the country.*

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National Weather Service Public Affairs. Prior to the Weather Service, she managed communication projects for a natural resource protection program in NOAA's National Ocean Service.

Before working in Silver Spring, Theresa held public affairs and communication positions at NOAA headquarters in Washington, DC, the American Psychological Association, and the American College of Cardiology.

Theresa has developed and implemented national communication strategies that encompassed media relations, constituent outreach, partnership development, and special events. She has supervised a variety of communication products from brochures to Web sites.

Working in Harpers Ferry is a sort of homecoming for Theresa. She started her career working for two full-service marketing, advertising, and public relation firms in Martinsburg, West Virginia.

Theresa grew up in Berkeley Springs and graduated from Shepherd College with a double major in communications and political science. She currently resides in Charles Town with her husband Eric and six-month-old daughter, Ava.

#### **Retirees**

##### **Tim Radford**

HFC audiovisual producer/director Tim Radford retired August 2 after 37 years of federal service. Among the more notable projects Radford worked on for the National Park Service were films for Andersonville National Historic Site, Antietam National Battlefield, Jefferson Memorial, Johnstown Flood National Memorial, North Cascades National Park, and Olympic National Park.

Radford's work on "Never Lose Sight of Freedom" for the Selma to Montgomery National Historic Trail garnered a 2007 CINE

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# News from Harpers Ferry Center



## Italian Park Managers Visit HFC

On September 10th, a group of Italian park managers visited Harpers Ferry Center, Mather Training Center, and Harpers Ferry National Historical Park. The group included the former Italian Forest Service director, the Superintendent of Dolomiti Bellunesi National Park, and several post-graduate students. During their visit to HFC, the group viewed several audiovisual programs and heard a presentation on National Park Service identity. The visit was coordinated by the NPS Office of International Affairs. (NPS Photo by David Guiney)

## Director Visits Willow Springs

NPS Director Mary Bomar (*below center*) visited HFC's Willow Springs facility on September 5th. Accompanying Bomar was Deputy Director Lindi Harvey. Wade Myers (*left*) is showing Bomar and Harvey the 1916

White House letter to Stephen Mather that accompanied the pen that was used to sign the Organic Act. The grouping of materials viewed by the Director included the pen, the White House letter, and a telegram sent to Mather by Albright telling him that the bill had been signed. (NPS Photo by Darryl Herring)

## Tuskegee Airmen NHS Takes Delivery of Stearman PT-17

Staff from contractor Air Repair (*below*) assemble an historic Stearman PT-17 at Tuskegee Airmen National Historic Site, Alabama. The park recently took delivery of this aircraft and a Piper Cub J-3. Both aircraft will be displayed in hangar one at Moton Field. The new exhibit, which will open to the public on October 10, 2008, is being managed by Harpers Ferry Center. (NPS Photo by Carol Petravage)



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Golden Eagle Award and a 2008 MUSE Award from the American Association of Museums. According to HFC colleague Chuck Dunkerly, the interactive DVD package for "Never Lose Sight of Freedom," which included the park film, exhibit videos, and over six hours of oral history interviews, was the most comprehensive media package ever produced by Harpers Ferry Center. Radford also produced and directed "American Mosaic" for the Discovery 2000 conference and the National Park Service Centennial Initiative film "National Parks Panorama."

Radford's son Justin, who serves as a project manager at Harpers Ferry Center, says that "Tim was the consummate film-maker. He was always pushing the boundaries and adapting new technologies like hi-def and surround sound, looking for new and different ways to connect people and parks." Dunkerly adds that through his "skills as a film-maker and story teller, Tim was always able to extract an emotional response from park visitors. He really knew how to use the power of film to move an audience."

In addition to his work at Harpers Ferry Center, Radford also served three years in Vietnam and two years with the National Endowment for the Arts in Washington, DC.



# The GPS Ranger

## Is One in the Hand Worth It?

By David Guiney

*In the May/June 2008 issue of HFC onMedia, we reviewed several new media products that parks are using to deliver interpretive content to visitors. One of these products, the GPS Ranger, is presently in use at several national park sites, including Cedar Breaks National Monument, Death Valley National Park, Martin Luther King, Jr. National Historic Site, and Vicksburg National Military Park. The device, developed by Bar Z Adventures, is an interactive handheld GPS (Global Positioning System) mobile guiding device that can deliver audiovisual messages to visitors as they explore your site.*

*In June 2008, Shenandoah National Park unveiled their version of the GPS Ranger. Harpers Ferry Center interpretive media specialist David Guiney and HFC onMedia editor Dave Gilbert, intrigued by the descriptions of this product, traveled to Big Meadows to give the device a try. They took the GPS Ranger for a two-hour hike on the Dark Hollow Falls trail.*

Park interpreters and media planners have always looked for ways to apply technology in the field. Wayside exhibit audio stations peaked in the early 1970s, and then began a slow decline. Tape players failed, batteries went dead, and no one was sure if that booming voice in the wilderness was appropriate. Today in many parks, the cell phone audio tour and the podcast offer more personal and reliable message delivery.

Global positioning system devices like the GPS Ranger have the potential to enrich park visitors' experiences by offering identification of features, information, personalized interpretation, safety messages, and wayfinding assistance. Other media, such as trail guides and wayside exhibits, do much the same, but the GPS Ranger has the advantage of always knowing where you are, and presenting relevant messages



*HFC's David Guiney holds the GPS Ranger along the Dark Hollow Falls trail in Shenandoah National Park. Interpretive specialist Claire Comer is featured on the park's GPS Ranger. (NPS Photo by David T. Gilbert)*

### Vicksburg's Experience With the GPS Ranger

In June 2007, Vicksburg National Military Park, Mississippi, unveiled their version of the GPS Ranger. Park historian Terrence Winschel, who provided six hours of video narration for the device, is quite pleased with the breadth and depth of content visitors can access through the device. Winschel has been at Vicksburg for 32 years.

"Our GPS Ranger," says Winschel, "is a comprehensive, broad-based hand-held guide to the park." The device encompasses the park's 16-mile driving tour. Visitors can use the device in their car, and also take it with them on foot at stops along the way to explore such sites as the USS Cairo Gunboat and Museum, the historic Shirley House, and several battlefield monuments.

The initial launch of the GPS Ranger, however, was accompanied by a variety of problems. "We really should have spent a little more time field-testing the device," says Winschel. "The GPS trigger points didn't always work properly, traffic noise made some of the audio difficult to hear, and the battery often ran out before people completed the tour." For every ten devices the park's bookstore rented, four to five would be returned for refunds.

These problems have largely been corrected, according to Shanna Farmer, Eastern National's business manager at Vicksburg. "We rented about 200 devices this past July," says Farmer, "and 72 devices in August." Only about one device in ten was returned for a refund this past summer. Still, problems persist. Farmer lists some of the most common complaints she hears:

- Bad weather impacts proper operation of the device.
- It's hard for elderly users to hear the audio. Users with hearing aids complain that they can't hear any audio.

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using video and audio. When you reach a designated location in the park, the handheld Ranger tells you what to look for, and explains why you should care about it.

In our everyday world outside parks, the cell phone changed our lives because it enabled experiences people wanted, in a package that was affordable and practical for most. The cell phone made it possible for almost anyone to stay in touch with anyone else most of the time.

While the cell phone facilitated the fundamental human desire to be connected, it created an additional and opposite need—the need to be sometimes inaccessible...out of touch...to have solitude and contemplation without distraction. The computer and cell phone demand our continuous attention, yet there is something foreign and stressful about technology that both serves us and binds us. Where can we seek relief from endless email, voice messages, and even popular entertainment? Perhaps in a National Park? That brings us back to the GPS Ranger.

The GPS Ranger can bring the voice and face of a park ranger to you, and much of the information and inspiration a good ranger can impart. But what price do you pay for that in terms of your park experience? Could the “virtual” tour actually detract from your enjoyment of the park?

Assuming you’re open to the idea of electronic experiences in parks, let’s review what you have to do to use the GPS Ranger. First you have to discover that such a device is available. You might find this information at the park’s Web site, or nested among competing options posted at the visitor center information desk.

Then you need to understand the terms of renting the device, and be willing to pay the fee. You may be required to surrender a credit card or drivers license to close the

deal. You’ll need to come back to the rental station to turn in the device, and to retrieve any ID you had to loan.

After reading a page or two of instructions, you’ll need to test the device outdoors, and then return it if there are technical problems. The GPS Ranger has to be properly programmed with content, and it has to find a GPS signal.

It might take a little while to learn the interface and controls. You’ll need to figure out the computer’s navigation system and what all those icons mean. You had to follow a similar routine for learning your cell phone, but you would be using the phone *thousands* of times, making the learning curve well worth the effort.

After the device is set up, you’ll need to decide where to use it, which you might do by consulting a real ranger or a park brochure. It doesn’t work everywhere—only at selected sites. The GPS Ranger has maps, but they’re pretty small. If you need glasses for reading, you’ll need them for the GPS Ranger. If you’re going to be in the sun, you may need sunglasses as well.

Along a park trail or at an overlook, the GPS Ranger will talk to you when there’s something interesting or important for you to know. It really is like having a ranger with you. In some respects it’s better, because a ranger alone might not be prepared to show you images, maps, video, sounds, and animations in the field.

With a ranger you would likely be in a group and need to follow along at the group’s pace, and focus on *their* interests. With the GPS Ranger you can slow down if you need to, or skip anything you want to without offending anyone. If you miss something on the way out, you can call it up on the way back. If you especially liked one of the presentations, you can play it again, as many times as you want.

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- It’s hard to see the LCD screen when users get out of their car into bright sunlight.
- Occasionally the units lock up or the touch screen fails.
- For some reason, many of the devices fail near the halfway point of the 16-mile driving tour at the USS Cairo Gunboat and Museum, which makes returning it for a replacement impractical.

To their credit, Bar Z Adventures has worked very hard to correct these problems. The company even hired a technical assistant to work with bookstore staff at Vicksburg this past summer to troubleshoot faulty units. The device also now comes with a car charger, which fixes the problem with battery failure. “Unfortunately, the charger is very bulky,” says Farmer, “and users sometimes forget to return it with their GPS Ranger.”

According to Farmer, people between the ages of 16-45 typically like the device, while folks over 45 aren’t very comfortable with it. She recalls one family who was traveling with several kids between the ages of 7-18. “The parents said their kids fought over the GPS Ranger during their entire battlefield tour. They all wanted to access the device’s interactive features and video narration.”

Eastern National rents their GPS Ranger for \$9.95 for the day—an attractive price when compared to the \$35 cost for a licensed tour guide for just two hours. Bar Z Adventures has invested \$78,000 in the Vicksburg GPS Ranger. One hundred percent of the rental proceeds Eastern National collects go to Bar Z Adventures until this investment is paid off.



The GPS Ranger isn't noisy or obtrusive. That's partly because its speakers are tiny and don't reproduce low-end frequencies. Its video screen is intimate—smaller than your hand, and much smaller than a laptop. It would be hard for you *and* a friend to see the screen at the same time—unless you're close friends.

If you're walking along a trail with rocks, roots, or potholes, it might be difficult to watch your step and the GPS Ranger's screen at the same time. A good strategy might be to stop and rest when the message starts.

Probably the best parks for the GPS Ranger are sites where resource values are largely hidden, as at a battlefield park. If you look out over a serene cornfield which was once the site of a bloody conflict, the Ranger can reveal to you in images, words, and sounds, what that event must have been like.

In a park where the main experience might be to immerse yourself in a giant redwood forest with all its sights, smells, sounds, and textures, it might be better to have that pure experience without the distraction of electronics. After all, you can always visit the redwoods Web site later, but you may never return to the grandeur of that grove.

Park interpreters know that a good mix of media and programs enhances visitors' enjoyment, knowledge, and appreciation of parks. No one interpretive medium can do it all.

The GPS Ranger is not for everyone. It's not for anyone who doesn't like computers, who doesn't enjoy doing two or more things at once, who can't see a small screen, or who wants a simple, uncomplicated experience. That said, applications and audiences for the GPS Ranger abound. It, or devices like it, will continue to evolve, with better sound, larger images, and compelling content tailored to this versatile medium.



**Above:** HFC interpretive media specialist David Guiney poses at the Upper Hawksbill Trailhead in Shenandoah National Park. The trail is the location for one of the four tours offered on Shenandoah's GPS Ranger. (NPS Photo by David T. Gilbert)



**Left:** "HFC onMedia" editor Dave Gilbert familiarizes himself with the GPS Ranger at the Dark Hollow Falls trailhead. (NPS Photo by David Guiney)